III. REMARKS REGARDING AMENDMENT TO CLAIMS

By the Notice of Non-Compliant Amendment, applicant understands that the amendment filed 1-10-02 has not been entered into the present application. Accordingly, it is believed that the amendment herein will be entered into the application, and that the 1-10-02 proposed amendment will have no effect. If this understanding is not correct, it is requested that an explanation of the processing of the 1-10-02 amendment be provided.

By the present amendment, the claims have been amended in the manner required by 37 C.F.R. §1.173. In this regard it is noted that the only amendments to the present application are amendments to pending claims. It is also noted that the Office Action of April 25, 2001, alleged that the amended claims did not comply with 37 C.F.R. §1.121(b), and required a supplemental paper that did comply with §1.121(b). In reply, it is believed that the Reply to the Office Action of April 25, 2001, did comply with §1.121. Nevertheless, the Notice of Non-Compliant amendment (37 C.F.R. 1.121) dated February 12, 2001, has no indication of any failure to comply with §1.121, but rather states in a handwritten explanation: "Doesn't comply to Rule CFR 1.173 [unintelligible mark]." In this regard it is believed that reference was made to new 37 C.F.R. §§1.173 (b), (c) and (d) as related to reissue claims. Also, it is believed that the only changes needed to render the proposed amendments to be in compliance with the new rule 1.173 are:

(1) indication that claim 25 is "twice amended";

(2) addition of a section providing the status of claims and an explanation of the support for the changes to the claims; and,

(3) revision of this REMARKS section.

Support for the amendatory language "taggant representation of an identification code"

is found in the specification at, for example, col. 1, ll. 15-18 and col. 3, ll. 1-63.

Specific citations to the specification for the amendment language is provided in section II, above. In summary, support for the "pen" language of claims 25-28 is found at, for example, col. 6, ll. 28-38, and support for the amendatory language of claims 29-39 is found, for example at col. 6, ll. 29-34; col. 5, ll. 51-64; and col. 6, ll. 3-16.

IV. REPLY TO REJECTION OF CLAIMS 25-39 UNDER 35 U.S.C. § 251 AS BEING AN IMPROPER RECAPTURE OF BROADENED CLAIM SUBJECT MATTER SURRENDERED IN THE PARENT APPLICATION

Claims 25-39 have been rejected under 35 U.S.C. § 251 as being an improper recapture of broadened claim subject matter surrendered in the parent application for the patent upon which the present reissue is based. The Office Action cited *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); and *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984).

A. Summary of Applicant's Response.

While applicant acknowledges that the recapture estoppel rule prevents the patentee from regaining through reissue subject matter surrendered in an effort to obtain allowance of original claims, no such surrender took place here. In *In re Clement*, *supra*, 131 F.3d at 1468, 45 USPQ2d at 1163 (Fed. Cir. 1997), the Federal Circuit held that claims that are "broader than the original patent claims in a manner directly pertinent to the subject matter surrendered during prosecution" are impermissible. According to the Federal Circuit, the recapture rule "prevents a patentee from regaining through reissue . . . subject matter that he surrendered in an effort to obtain allowance of the original claims." *Id.*, 131 F.3d at 1468,

45 USPQ2d at 1164. Most importantly, however, the Federal Circuit, in *Clement*, also stated that the recapture rule does not apply in the absence of evidence that the applicant's amendment was an admission that the scope of that claim was not in fact patentable. Also, it is well settled that a reissue application can be used to present for the first time claims to a sub-combination of a previously claimed combination. *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (Fed.Cir. 1998).

As will be shown below, there has been no admission that the scope of the original claim was not in fact patentable. It will also be shown that the present claims are directed to a sub-combination of a previously claimed combination, rather than to the previously claimed combination, but of a different scope. Specifically, the previous claims were directed to a method of tagging a substance, and a taggant composition both method claims and the composition claims included the combination of (A) an isotopic taggant and (B) an identification code. In the present invention, the new, independent reissue claims are not directed to this combination. Rather, they are directed to a taggant pen (claim 25), a method of securing authenticity of a document (claims 29, 31 and 32), a method of verifying the destruction of a document (claim 35), a taggant spray paint dispenser (claim 36), a method of securing the authenticity of a product (claim 38) and a method of securing the authenticity of clothing (claim 39). None of these independent claims require the "isotopic taggant" limitation. While independent claims 25, 29, 31, 32, 36, 38 and 39 do require "an identification code," they do not require an "isotopic agent." Thus, each of these claims, and their dependent claims fall under the rule of *C.R. Bard*, as permissible reissue subject matter, rather than under the rule of *Clement*, as an attempt to recapture subject matter surrendered in the original application. Furthermore, claim 35 is directed to a method of verifying destruction of a document using only the "isotopic taggant" sub-combination. Claim 35 has no limitation that is directed to "an identification code." Thus, claim 35 is directed to a sub-

combination and outside of the recapture estoppel rule under *C.R. Bard.*

Of relevance to a recapture estoppel issue is the intention of the applicant to claim inventive subject matter in the original prosecution. Here, contrary to the suggestion in the Office Action, there was no intention to claim in the original application the methods of Goldblatt et al or of Soberman et al or any combination of the two. The scope of the claims as originally written, and as modified did not extend to the subject matter of the two cited references, but rather was directed to the combination discussed above. Even if it is assumed that some inventive subject matter was surrendered in the original prosecution, any such surrender was limited to only the "isotopic taggant" feature of the invention. The reissue claims presented here cannot be considered to recapture subject matter surrendered in the original application because the independent claims are directed to entirely new subject matter which had never been claimed in the parent application.

B. <u>No Surrender of Previously Claimed Subject Matter.</u>

The prior art cited by the examiner during the prosecution of the original application included Soberman et al and Goldblatt et al. The only statement in the Office Action that defines the subject matter alleged to have been surrendered is found on page 3, lines 1-4 of the Office Action:

> The claims were amended to include 'wherein said abundance ration being unchanged by chemical reactions['] and on page 14 of the remarks section of [the] amendment of 1/26/98 of application 08/668,648 the applicant argued that the reference did not show the above quoted phrase.

Thus, the distinction drawn in the Office Action is that in some of the original claims directed to "isotopic taggant" stable isotopes in which the abundance ratio was changed by chemical

reactions was surrendered, but "isotopic taggant" stable isotopes in which the abundance ratio was unchanged by chemical reactions was not surrendered.

Of even greater significance is that claims 23 and 24 of the '394 patent are directed to the combination of isotopic taggants and an identification code, but do not limit the stable isotopes to only those that have an "abundance ratio being unchanged by chemical reactions." Thus, it is not true that all claims in the original application surrendered the subject matter of stable isotopes with abundance ratios that are changed by chemical reactions.

In addition, neither Soberman et al nor Goldblatt et al disclosed the use of the combination of "an isotopic taggant" and "an identification code" in which the abundance ratio of the isotopic taggant was changed by chemical reactions.

Soberman, et al discloses a detection/identification method for determining the presence of a Mossbauer isotope-containing taggant in a carrier material. The detector includes a Mossbauer isotope-containing detecting substance that is identical to the taggant, and a sensing element responsive to the presence of the tagging substance in the carrier material. There is no disclosure of an identification code or of stable isotopes having abundance ratios that change by chemical reactions. The Soberman, et al invention is directed toward using the presence of one or more Mossbauer isotopes to provide identifying information. In the Soberman, et al invention, the concentration of the isotopes affects only the signal-to-noise ratio, but provides no identifying information. Again, in contrast to this, the applicant's original and amended claims were directed at using controlled relative concentrations of isotopes to provide identifying information. In the applicant's invention, the mere presence of one or more isotopes provides no information about the identification of the tagged substance.

Goldblatt, et al discloses compounds, multiply labeled with stable isotopes and highly enriched in these isotopes, that are readily capable of detection in tracer experiments involving high dilutions. There is no disclosure of an identification code or of stable isotopes having abundance ratios that change by chemical reactions. The Goldblatt, et al invention is directed toward tracing the spatial distribution of a gas, such as an exhaust plume, and monitoring the level of dilution as that gas mixes with another gas, such as air. The Goldblatt, et al invention, is used in an open system, and the relative concentration of the isotopes provides no identifying information, but only provides information about the concentration of the gas being traced. Nothing is said of using the method to distinguish between multiple sources of gas. In contrast to this, the applicant's original and amended claims were directed at using controlled relative concentrations of isotopes to provide identifying information. In the applicant's invention, the relative concentration of the isotopes provides no information about the concentration of the tagged substance.

Applicant was aware of both Soberman, et al and Goldblatt, et al at the time of the original filing of the parent application, and included these citations in his information disclosure. There was no intention to claim, and was no claiming of subject matter of a scope covered by either Soberman, et al or Goldblatt, et al or a combination of the two. Applicant's invention, as claimed in the original application, provides for the combination of isotopes having artificially controlled isotopic abundance ratios of multiple stable isotopes in each of one or more elements to form an identification code. Unique taggants, each corresponding to a unique identification code, are created by mixing unique combinations of ratios of multiple stable isotopes of one or more elements. The resulting mixture is added to the substance or product to be tagged. When identification is required, the isotope abundance ratios of the taggant element or elements are measured, and the resultant measurements are compared with the appropriate identification tagging records made at the time the substance

or product was tagged.

C. **No Surrender Of Claim Scope By The Amendments Made.**

Applicant acknowledges that some claims were amended during prosecution of the parent application. With respect to the amendments made to claims 1 through 4 of the original application, however, it is readily apparent that those amendments were made to clarify, but not to change the scope of any of the claims. For example, the word "isotopic" was used to modify "abundance ratio"; however, it is readily apparent that the term "isotopic" was implied from the context of the original claim. Similarly, the amended language "wherein said abundance ratio being unchanged by chemical reactions" is a statement that, in reality, merely describes and inherent property of a stable isotope in a closed system, and therefore does not change the scope of the claim. Such language was certainly not necessary to render the claims patentable over the cited references, and was not an admission that the claims were not patentable absent this amendatory language. Furthermore, because Goldblatt, et al concerns an open system, rather than a closed system, any comparison of abundance ratio change, or lack of change, is meaningless . Additional, specific reasons why the original claims were patentable over Goldblatt et al and Soberman et al are explained above.

D. **The New Reissue Application Claims Are Directed To New Inventive Subject Matter.**

Independent claim 25 is directed to a taggant pen wherein the taggant is representative of an identification code. Thus this claim is directed to the sub-combination ("an identification code") of the combination ("an identification code" plus "an isotopic taggant") of independent method claims 1, 7, 12, 18, 23 and 24 of the '394 patent.

Independent claims 29, 31 and 32 are directed to a method of securing the authenticity

of a document by marking the document with an ink in combination with a taggant representative of "an identification code". No such claim was made in the original application. These claims do not require any isotopic taggant as part of the combination of the original or issued claims.

Independent claim 35 is directed to a method of verifying destruction of a document comprising tagging the document with an isotopic taggant, in combination with destroying the document and verifying the presence of the taggant and the residue remaining after the document is destroyed. Claim 35 does not include the sub-combination of "an identification code" and is therefore not directed to the combination of the original claims ("isotopic taggant" plus "identification code").

Independent claim 36 is directed to a taggant spray paint dispenser comprising a spray paint dispenser, and a paint contained in the dispenser in combination with a taggant representative of an identification code. The claim is not directed to an "isotopic taggant".

Independent claims 38, and 39 are directed to a method of securing the authenticity of a product, and, of clothing, respectively, by marking the product with tagged spray paint, and incorporating tagged thread in the clothing, respectively, in combination with an identification code. These claims are not directed to an isotopic taggant.

All of the original and issued claims require the combination of an isotopic taggant and an identification code. None of the above identified independent reissue application claims require this combination. Therefore, they all fall outside of the recapture estoppel rule, for this reason alone, under *C.R. Bard, id.*

E. The Reissue Application Claims Do Not Recapture Subject Matter Purportedly Surrendered.

The reissue claims do not recapture subject matter previously surrendered for the following reasons.

Independent claim 25 is directed to a taggant pen and not to a taggant composition as set forth in the original patent. The Soberman, et al patent does not describe a taggant pen, and does not describe the use of Mossbauer isotopes in pens or inks. Indeed, it appears not to be possible that the method of Soberman, et al could be applied to ink, because the Mossbauer effect occurs in solids, but not liquids (see Soberman et al Col 6 lines 4-5).

The Goldblatt, et al patent does not describe a taggant pen, or the application of taggants to inks. Indeed, the Goldblatt, et al patent is not directed toward taggants at all, but rather toward tracers; the distinction being that taggants are used to provide identifying information to distinguish among a number of otherwise identical substances or objects, while a tracer is an identifiable substance that can be followed through the course of a mechanical, chemical, or biological process, providing information on the pattern of events in the process or on the redistribution of the parts or elements involved. The system described by Goldblatt, et al is valuable as a tracer because the tracing molecules can be detected at very large dilutions. However, it was never purported to be an identification taggant system, and would not be effective in that application because of the very limited number of distinct labeling codes available.

Similarly, independent claim 29 is directed to a method of securing the authenticity of a document by marking the document with a pen. No such method is described by either Soberman, et al or Goldblatt, et al, neither of which mentions either inks or pens.

Independent claims 31 and 32 are directed to a method of securing the authenticity of a document comprising marking the document with tagged ink, and, with tagged paint. No such method is described by either Soberman, et al or Goldblatt, et al, neither of which mentions either inks or paint.

Independent claim 35 is directed to a method of verifying destruction of a document comprising tagging the document with an isotopic taggant, destroying the document and verifying the presence of the taggant in the residue remaining after the document is destroyed. No such method is described by either Soberman, et al or Goldblatt, et al, neither of which mentions destruction of documents.

Independent claim 36 is directed to a taggant spray paint dispenser comprising a spray paint dispenser, a paint contained in the dispenser and the paint containing a taggant. No such dispenser was is described by either Soberman, et al or Goldblatt, et al, neither of which mentions paints or paint dispensers.

Independent claim 38 is directed to a method of securing the authenticity of a product, by marking the product with tagged spray paint. No such method is described by either Soberman, et al or Goldblatt, et al, neither of which mentions paint.

Independent claim 39 is directed to a method of securing the authenticity of clothing, by and incorporating tagged thread in the clothing. No such method is described by either Soberman, et al or Goldblatt, et al, neither of which mentions either clothing or thread.

Thus, it is clearly seen that the scope of the reissue claims does not extend to the subject matter purportedly surrendered in the parent application, specifically that of Goldblatt,

et al and Soberman, et al.

For all of the above reasons, it is respectfully requested that the rejection based on the recapture estoppel rule be withdrawn.

V. REPLY TO REJECTION OF CLAIMS 25, 27-36, 38, AND 39 AS BEING UNPATENTABLE OVER SOBERMAN ET AL IN VIEW OF WINNIK, ET AL AND GOLDBLATT, ET AL

Claims 25, 27-36, 38, and 39 are rejected as being unpatentable over Soberman, et al (4363965) in view of Winnik, et al (5271764) and Goldblatt, et al (3788814), on the ground that Soberman, et al discuss using non-radioactive isotopes as taggants as identifiers in various compounds, and that Winnik, et al describe the use of taggants in ink jet ink for marking and encoding. The specific reference in Winnik, et al is "...ink compositions useful in the printing of concealed images for security or encoding applications, ..." (col 1 lines 8-10). In this phrase (and elsewhere in their patent), Winnik, et al fail to disclose any kind of identification taggant system. In the applicant's relevant amended reissue application claims, the authenticity of a document is determined according to the constituents of the ink. Different sources of ink (i.e., different pens) would provide inks with different, traceable, constituents. Winnik, et al disclose only one ink constituent. In col 1 lines 6-10, Winnik, et al disclose the use of concealed images for security or encoding applications. It is clear in this reference that any encoding is based on the presence or absence of certain images, not in the constituents, per se, of the ink. Also, the ink composition disclosed by Winnik, et al is for the purpose of producing images that are visible only under specific illumination; no information is contained about the constituents of the ink. In the applicant's invention, all encoding of security information is based on variations in the constituents of the ink, rather than on variations in the images formed by the ink.

Soberman, et al discloses using Mossbauer isotopes as a detection and identification taggant. However, it would not have been obvious to combine Soberman, et al with Winnik, et al for two reasons.

First, the normal function of an ink, when deposited on a substrate, is to convey information through the patterns or images formed by the distribution of the ink. Although the term taggant is used by both Soberman, et al and Winnik, et al, the term is used with two different meanings. In Winnik, et al, the taggant improves the visibility of the ink, or controls the visibility of the ink under certain lighting conditions, but variations in ink composition are not used to encode identifying information. The tagging process described by Winnik, et al does not change the basic function of ink; information is conveyed only through images or patterns formed by the distribution of ink. Soberman, et al, on the other hand, disclose a tagging system, based on Mossbauer isotopes, wherein identifying information is conveyed through the composition of the tagged substance, i.e., through the presence of certain isotopes in a certain chemical form. However, Soberman, et al did not disclose using this system for inks and there is no suggestion or motivation for doing so. Although both Soberman, et al and Winnik, et al disclose using "taggants" to convey identifying information, they actually use entirely different processes; there is no commonality to their methods beyond the addition of a tagging substance.

Second, the method of Soberman, et al occurs in solids but not in liquids, while the inks described by Winnik, et al are liquids. Combination of the two systems is therefore impossible.

In addition, the Goldblatt, et al invention is directed toward tracing the spatial distribution of a gas, such as an exhaust plume, and monitoring the level of dilution as that gas

mixes with another gas, such as air. The Goldblatt, et al patent does not describe the application of taggants to inks. Indeed, as described above, the Goldblatt, et al patent is not directed toward taggants at all, but rather toward tracers; the distinction being that, by definition, taggants are used to provide identifying information to distinguish among a number of otherwise identical substances or objects, while a tracer is an identifiable substance that can be followed through the course of a mechanical, chemical, or biological process, providing information on the pattern of events in the process or on the redistribution of the parts or elements involved. It is not obvious to combine Goldblatt, et al with Winnik, et al because Goldblatt, et al fails to mention or suggest use of inks, and Winnik, et al has not described a tracer system. Even if they were combined, one would obtain a system for tracing the dilution of one ink batch in another, not a system for encoding identifying information in the composition of the ink. In sharp contrast, the applicant's reissue application claims are directed specifically toward methods for encoding identifying information in the composition of the ink.

Thus, for all of the above reasons, it would not have been obvious to one skilled in the art how any combination of Soberman, et al, Winnik, et al, and Goldblatt, et al could teach the subject matter of the applicant's claims 25, 27-36, 38, and 39. Therefore, the rejection of the applicant's pending claims 25, 27-36, 38, and 39 under 35 U.S.C. §103(a) should be withdrawn and the claims allowed.

VI. REPLY TO OBJECTION TO CLAIMS 26, 37 AS BEING DEPENDENT UPON A REJECTED BASE CLAIM.

The examiner objected to claims 26 and 37 as being dependent upon a rejected base claim. These claims have been rewritten in independent form.

VII. ACKNOWLEDGMENT OF ALLOWANCE OF CLAIMS 1-24.

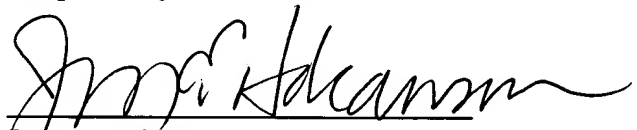
The allowance of claims 1-24 in the Office Action is acknowledged.

VIII. CONCLUSION

For all of the above reasons, it is believed that the application is now in condition for allowance, and such action is respectfully requested.

Dated: February 21, 2002

Respectfully submitted,



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